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## **Product Definitions**

The product definitions listed below are designed to classify the tree into several useful categories to help determine the existing condition of the forest, and future needs. For the product categories, the trees are considered alive except for the snag product.

- S Sawtimber trees are those trees in the 14-inch diameter class and larger that are considered to have merchantable sawtimber volume. Sawlog height is measured using 12-foot logs to a 10-inch dib.
- Quality sawtimber trees are sawtimber trees that have high quality, i.e. minimal defect, but don't quite reach prime quality. Quality trees must be at the minimum in the 16-inch DBH class. The determination of quality is made in the butt log. Quality trees cannot have any decay defects in the butt log. Quality trees can have some, limited, non-decay minor defect in the butt log, but can have no major defect. There can be no internal decay in the butt log evidenced through sounding for punky wood or hollow sound. Quality trees can have decay defect in the upper logs as long as it does not produce greater than 20% defect deduction. Sawlog height is measured using 12-foot logs.
- V The V is from veneer, but this really refers to prime trees. The term veneer here is really for the designation of prime trees, per the stated grading guide. The only species to be considered to have prime are black walnut, northern red oak, white oak, chinkapin oak, swamp chestnut oak, swamp white oak, and burr oak. The determination of prime is made in the butt log. If the butt log cannot make prime, but a higher log can, the tree is still not considered prime. To be considered prime, black walnut must have a minimum 8 feet of clear log length on all four faces and a minimum DBH of 17 inches. The oaks must have a minimum of 8 feet clear length on all four faces and a minimum DBH of 19 inches. To be clear log length, there can be no visible defects such as knots, pin knots, catfaces, seams, scars, etc. on the butt log except close to the ground line on root flares. There can be no open defects such as a dead fork, open hole, or surface decay anywhere on the butt log. There can be no internal decay in the butt log – evidenced through sounding for punky wood or hollow sound. Prime trees can have decay defect in the upper logs as long as it does not produce greater than 10% defect deduction. Sawlog height is measured using 12-foot logs.
- P Poles are considered to have no merchantable sawtimber volume, and are trees in and smaller than the 13-inch diameter class, down to the six-inch class. Volume in poles in calculated in cords. Poles with defect that destroys their volume can be considered culls. Cordwood height to a 4-inch dib is measured using 16-foot logs.
- C Culls are defined as live trees with no merchantable volume. Poles can be considered culls when they are determined to have essentially no sound cord volume. Height to a 4-inch top is measured using 16-foot logs.

- N Snags are defined as standing, dead trees. These can be sawtimber size or pole size. Height to a 4-inch dib is measured using 16-foot logs.
- A Saplings are live trees in the five-inch class to the one-inch class. No merchantable height measure is taken on these.

The leave and remove/harvest designations are to determine the likely status of a particular tree should management activities occur in the area. This would be for trees whose removal is recommended to occur. A tree to be removed could be removed via several operations – TSI, logging, hazard tree removal in recreation areas. In a typical forest situation there are several reasons a tree would be chosen for removal/harvest:

- The tree exhibits poor vigor/weak crown, and will likely die before the next management activity is likely to occur.
- The tree has a major defect, and its removal would benefit surrounding decent trees by providing release.
- The tree is a decent tree in amongst many decent trees that are competing against one another. The tree must be removed to provide significant release on residual decent trees to improve vigor and growth, and prevent stagnation and eventual mortality.
- The tree is competing against other trees that are preferred to reach the desired future condition of the tract, and its removal would benefit the growth of the preferred trees. Preference may by determined by site conditions, species composition, quality, or combinations of these.